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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,706	04/27/2001	Arun Shah	68110328.713	9552

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BAKER & MCKENZIE
PATENT DEPARTMENT
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EXAMINER

ABEL JALIL, NEVEEN

ART UNIT	PAPER NUMBER
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2175

15

DATE MAILED: 11/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/844,706

Applicant(s)

SHAH ET AL.

Examiner

Neveen Abel-Jalil

Art Unit

2175

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9-12. 6) ☐ Other: _____

DETAILED ACTION

1. In response to applicant's electronic inquiry on November 19, 2003 regarding the last Office action, the following corrective action is taken.

The period for reply of 3 MONTHS set in said Office Action is restarted to begin with the mailing date of this letter.

2. A corrected copy of the last Office Action is enclosed.

3. The amendment filed on June 2, 2003 has been received and entered. Claims 1-10 are pending.

4. Acknowledgment is hereby made for the amended abstract.

Drawings

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "125b" has been used to designate both in figure 1 and figure 3a. The Examiner finds the labeling misleading. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

Art Unit: 2175

6. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested:

Allocation measures and metric calculations in star schema multi-dimensional data warehouse.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1-5 are rejected under 35 U.S.C. 101 because the claims are directed to a non-statutory subject matter, specifically, directed towards an data structure.

The Supreme Court has repeatedly held that abstractions are not patentable. "An idea of itself is not patentable". "Rubber Tip Pencil Co. V. Howard", 20 Wall.498, 07. Phenomena of nature, though just discovered, mental processes, abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work "Gottschalk v. Benson", 175 USPQ 673, 675 (S Ct 1972). It is a common place that laws of nature, physical phenomena, and abstract ideas are not patentable subject matter "Parker v. Flook", 197 USPQ 193, 201 (S Ct 1978).

Database Structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are neither physical "things" nor statutory processes. Applicant's claims are not within any of the statutory classes. "A database structure" should define structural and functional interrelationships between data structures or

Art Unit: 2175

functional parts and a computer system which permit the data functions to be realized, and is statutory.

9. The attempt to incorporate subject matter into this application by reference to patent application on page 1, line 3 is improper because no application number has been given.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

11. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Egilsson et al. (U.S. Patent No. 6,434,557).

Art Unit: 2175

As to claims 1, and 6, Egilsson et al. discloses a computer readable medium for storing a plurality of instructions for calculating a measure, said plurality of instructions comprising:

receiving a request to calculate a measure (See column 18, lines 30-46), said measure associated with one or more requested levels (See column 15, lines 30-60);

determining at least one allocated level for the measure (See column 17, lines 42-46);

selecting a first star from a first stargroup associated with the measure (See column 16, lines 13-30), wherein the first star supports the at least one allocation level for the measure (See column 16, lines 31-54),

selecting a second star from a second stargroup associated with a control measure, wherein the second star supports the one or more requested levels (See column 16, lines 13-54, wherein “second star” reads on “grouping”).

As to claims 2, and 7, Egilsson et al. discloses computer readable medium wherein the plurality of instructions (See column 4, lines 34-65) comprising determining at least one allocated level (See column 5, lines 57-67, and see column 6, lines 1-21) further comprises:

comparing the requested levels to a lowest level star in the first stargroup (See column 12, lines 3-10); and

selecting for each requested level, a minimum of the requested level and a corresponding one of one or more dimension levels associated with the star (See column 12, lines 29-65, also see column 17, lines 31-46).

Art Unit: 2175

As to claims 3, and 8, Egilsson et al. discloses the computer readable medium wherein the plurality of instructions (See column 4, lines 51-65) further comprising:

calculating the measure for the allocated levels (See column 17, lines 31-46); and

calculating the control measure for the requested levels (See column 7, lines 30-35, also see column 8, lines 48-67).

As to claims 4, and 9, Egilsson et al. discloses determining the allocated levels (See column 2, lines 43-63) further comprises:

determining the allocated levels wherein no star exists which supports the measure at the requested levels (See column 2, lines 1-16, wherein “no star” reads on “non-associative”, also see figure 8 which shows the measurement allocation).

As to claims 5, and 10, Egilsson et al. discloses wherein the control measure is a predetermined measure associated with the measure (See column 4, lines 10-18, wherein “predetermined” reads on “set”, also see column 5, lines 57-67, and see column 6, lines 1-21).

Response to Arguments

12. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Art Unit: 2175

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Malloy (U.S. Patent No. 5,926,818) teaches relational database implementation of multi-dimensional database.

Roccaforte (U.S. Patent No. 6,484,179 B1) teaches storing multidimensional data in a relational database management system.

Kothuri et al. (U.S. Patent No. 6,505,205 B1) teaches relational database system for storing nodes of hierarchical index using metadata.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neveen Abel-Jalil whose telephone number is 703-305-8114. The examiner can normally be reached on 8:00AM-4: 30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 703-305-3830. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Neveen Abel-Jalil
November 21, 2003


CHARLES RONES
PRIMARY EXAMINER